

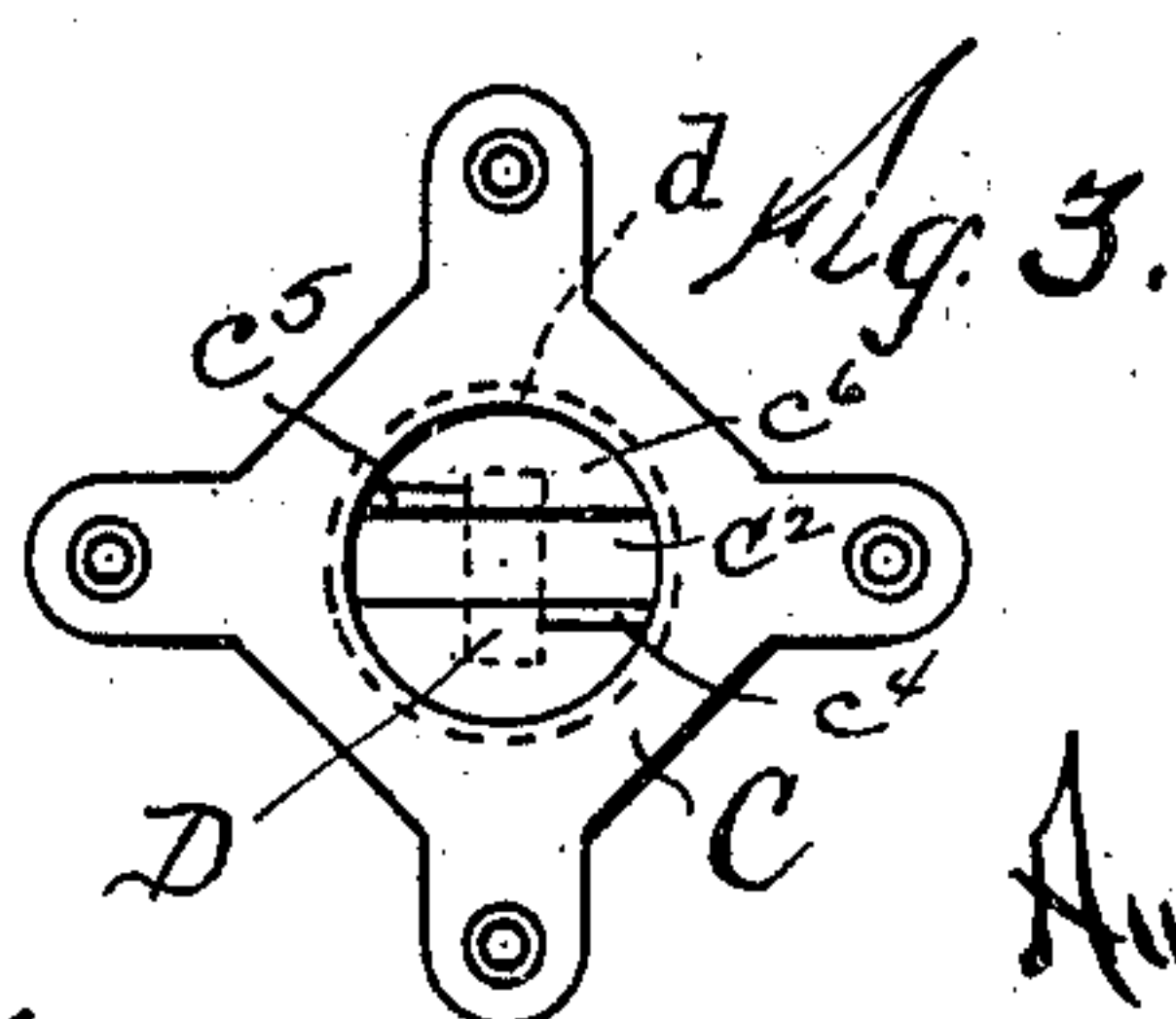
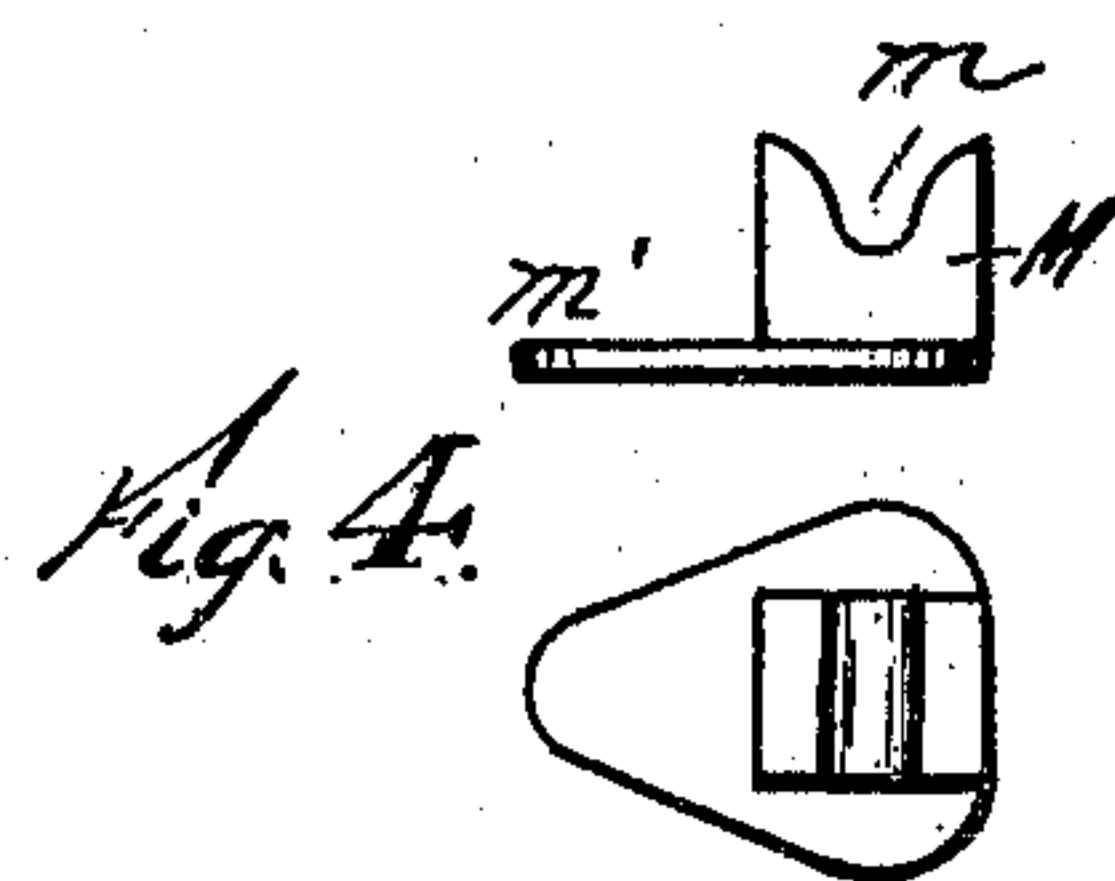
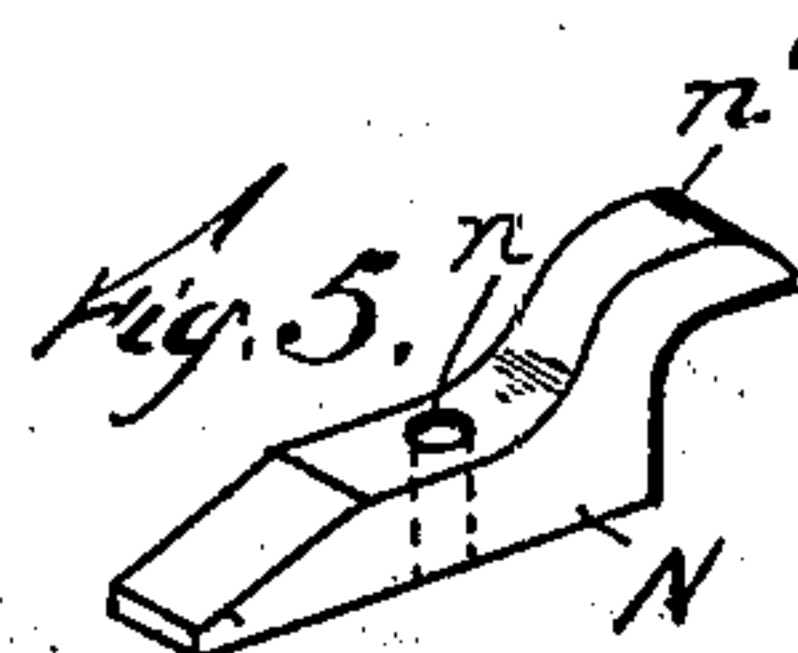
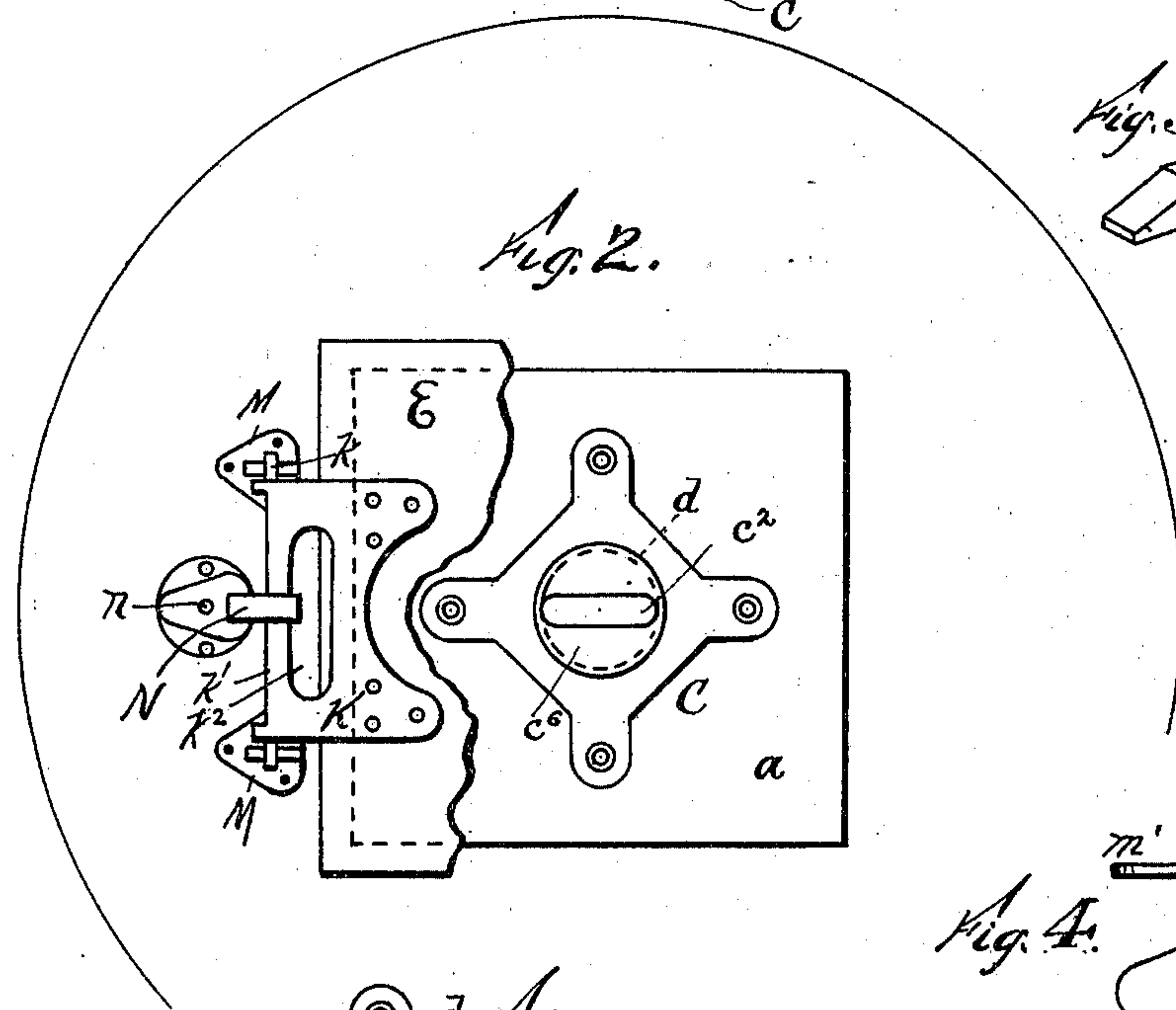
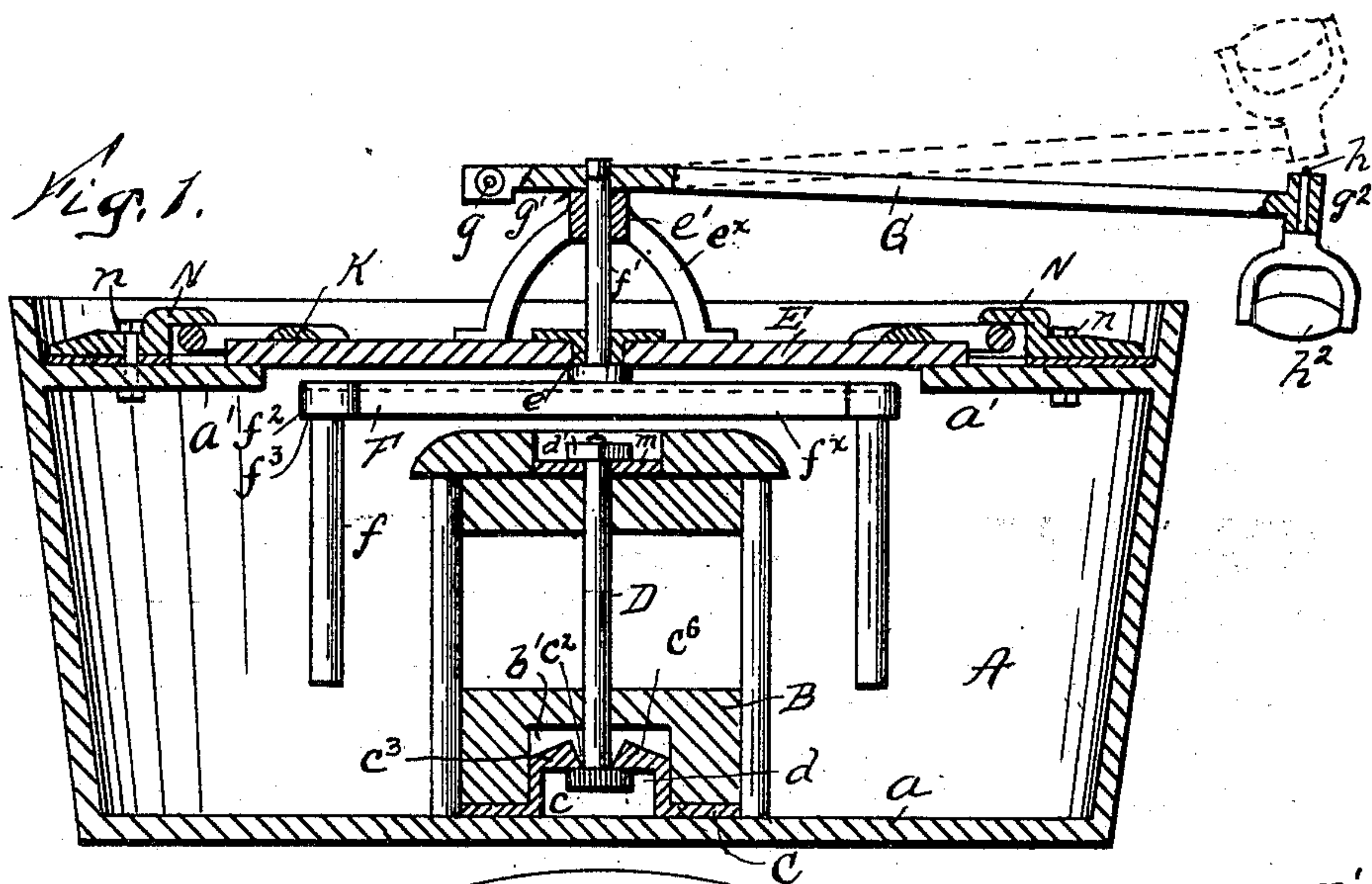
No. 627,297.

Patented June 20, 1899.

A. G. CHRISTMAN.
WASHING MACHINE.

(Application filed May 31, 1898.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

AUGUSTUS G. CHRISTMAN, OF READING, PENNSYLVANIA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 627,297, dated June 20, 1899.

Application filed May 31, 1898. Serial No. 682,095. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS G. CHRISTMAN, a citizen of the United States, residing at Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in washing-machines and is fully described in the following specification and clearly shown in the accompanying drawings, in which—

Figure 1 is a sectional elevation of a machine, showing my improvements. Fig. 2 is plan view of the same, showing the means for attaching the lid to the tub. Fig. 3 is a separate reversed view of the bottom plate, showing in dotted lines the position of the T-headed bolt. Fig. 4 shows the open bearing for the lid-hinge, and Fig. 5 the pivoted cover-bearing.

A represents a tub, a the bottom thereof, and a' an inwardly-projecting top ledge, on which the lid or cover E bears when closing the opening to the tub.

F designates the agitator-frame, the same comprising a central body portion f^x , having a spring-band f^2 , provided with recesses or sockets f^3 , designed to receive the ends of downwardly-extending fingers or rubbers f . A central shaft f' , secured to body portion f^x , extends through bearings e , formed in lid E, and corresponding bearings formed in a bracket e^x , secured to said lid.

The rubber cylinder B is secured to the bottom of the tub, so as to be normally stationary therewith, yet quickly and easily removable, by means of locking mechanism comprising a plate C and a bolt D. The plate is raised at the center to form a recess c between the bottom of the tub and the central portion c^6 of the plate, and this raised portion of the plate enters a correspondingly-shaped recess b' in the base of the cylinder B. The central portion c^6 of the plate C is provided with a slot c^2 , the width of which is sufficient to admit in lengthwise position the T-head d of the bolt D. On the under surface of the raised portion c^6 two stops c^4 and

c^5 are provided on the opposite edges of the slot c^2 . These stops extend toward the center of the plate from opposite ends of the slot, but terminate short of the middle, so as to permit the head of the bolt D to assume the position indicated in Fig. 3.

The bolt D in the center of the rubber cylinder serves to fasten or release the latter, as follows: To fasten it, the cylinder is set upon the plate, so as to permit the T-head d to pass lengthwise into and through the slot c^2 . When the head d has passed through the slot, either the bolt D or the rubber cylinder is turned so as to set the head d at right angles to the length of the slot, this movement at the same time serving to automatically center the head in the plate C by its contact with one or the other of the stops c^4 c^5 , which stops will then prevent further turning of the bolt while drawing up the nut d' to firmly lock the cylinder to the plate C.

Another feature of my invention is the means for detachably hinging the lid E, with its connected agitator apparatus, to the ledge a' of the tub. These means consist of plates K, fixed to the lid at opposite points, bearings M M, fixed to the ledge a' and open on top, so as to permit the free insertion and removal of trunnions, and buttons N, pivoted at n to the ledge a' of the tub, so as to swing over the bars k' of the trunnion-plates when desired and prevent the latter from rising out of the open bearings M. By this construction when one of the buttons is turned out of engagement with its plate the lid may be swung upward upon the trunnions of the upper plate, the button at this side operating to hold said trunnions in their bearings and the slot in the plate preventing said button from interfering with the turning of the lid, and when both buttons are disengaged from the plates the lid and connected agitator may be lifted vertically, as is often preferable.

Another feature of my invention is the novel lever construction whereby the location and swing of the handle may be quickly and conveniently changed to suit different conditions. The lever G is provided with two sockets g g' , either of which may be secured to the top of the agitator-shaft f' , thus enabling the length of the lever to be varied. The outer end is provided with a boss g^2 , in

which is reversibly socketed the shank h of the U-shaped handle-frame H. The lever G is also bent somewhat, and when arranged as indicated in Fig. 1 the handle-bar h^2 is in the lowest position, while the dotted lines indicate the highest position to which it is readily raised by merely reversing the lever and handle. It will be seen that the U-shaped handle is as readily grasped in one position as the other.

Having thus fully described my invention, what I claim is—

1. In a washing-machine the combination with the tub, and the cover or lid therefor, of open-top bearings fixed to the tub, a plate attached to the lid and having trunnions journaled in said bearings, said plate having an opening, and a pivoted button arranged to engage said plate adjacent to said opening, whereby the lid may be swung upon said trunnions or lifted from the tub, as set forth.

2. In a washing-machine the combination with the tub and the cover or lid therefor, of open-top bearings fixed to opposite sides of the tub, plates attached to the opposite sides of the lid and having trunnions journaled in said

bearings, each of said plates having a slot, and a rounded outer side or bar contiguous to said slot, and pivoted buttons, constructed and arranged to hold the trunnions detachably in the bearings, substantially as described.

3. The combination with a tub, of a plate having a central raised portion forming a recess and provided with an elongated slot, a rubber cylinder having a recess in its bottom designed to receive said plate, a threaded bolt passed longitudinally through said cylinder and having an elongated head working in the recess of said plate, stops formed on the under side of the raised portion of said plate and on the opposite sides of said slot, a threaded nut working on the free end of said bolt, an agitator having depending fingers, and means for operating the same, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

AUGUSTUS G. CHRISTMAN.

Witnesses:

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